Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

Claim 1 (currently amended). A method for manufacturing a trench capacitor having an isolation trench, which comprises:

forming a trench capacitor in a trench of a semiconductor substrate, the trench capacitor having:

a lower part formed with an outer electrode, an inner electrode, and a dielectric between ~~said~~ the inner and outer electrodes;

an upper part formed with a collar isolation on sidewalls of the trench;

wherein a silicon layer covers the trench capacitor on top of the collar isolation and a hard mask covers the silicon layer;

~~and the method further comprises:~~

opening the hard mask to reach a surface of the silicon layer;

in a first etching step, dry etching with an etching gas comprising chlorine or bromine until the collar isolation is reached; and

in a second etching step, dry etching the semiconductor substrate, the collar isolation and inner electrodes of the trench capacitor with an etching gas ~~comprising~~ including silicon fluoride and oxygen.

Claim 2 (original). The method according to claim 1, wherein the etching gas in the first step comprises hydrogen chlorine gas and at least one of the gases helium and oxygen.

Claim 3 (original). The method according to claim 1, wherein the etching gas in the first step comprises hydrogen bromine gas and at least one of the gases helium and oxygen.

Claim 4 (original). The method according to claim 1, wherein the etching gas in the second step further comprises argon gas.

Claim 5 (original). The method according to claim 4, wherein the etching gas during the second step further comprises CF_4.

Claim 6 (original). The method according to claim 1, which comprises terminating the first etching step and starting the second etching step when, during the first step, a by-product generated from the oxide isolation is detected.

Claim 7 (original). The method according to claim 1, which comprises terminating the first etching step and starting the second etching step in response to a signal obtained from a measurement employing interferometry.

Claim 8 (original). The method according to claim 1, which comprises terminating the first etching step and starting the second etching step in response to a signal obtained from a measurement employing optical emission spectroscopy.

Claim 9 (original). The method according to claim 1, which comprises starting the second etching step after performing the first step during a predetermined time period.

Claim 10 (original). The method according to claim 1, wherein the hard mask comprises boron silicate glass.

Claim 11 (original). The method according to claim 1, wherein the hard mask comprises silicon oxide.

Claim 12 (original). The method according to claim 1, wherein the collar isolation comprises silicon oxide.

Claim 13 (original). The method according to claim 1, which comprises forming in the semiconductor substrate at least two closely adjacent trench capacitors having a collar isolation and forming the hard mask relative to the at least two trench capacitors so that portions of the collar isolations facing each other are etched during the second etching step and in that portions of the collar isolations that are not facing each other are maintained during the second etching step.